

Using Administrative Records in the American Community Survey

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Agenda

- Using Administrative Records: Why and How?
- Guiding Principles
- Evaluating Administrative Sources
- Case Study
- Lessons Learned
- Path Forward

Why Use Administrative Data?

- Reduce the amount of information we request from respondents
- Increase data reliability
- Provide cost savings by reducing the need for follow up visits
- Mandated by Title 13 of the U.S. Code:

To the maximum extent possible and consistent with the kind, timeliness, quality and scope of the statistics required, the Secretary shall acquire and use information available from any source referred to in subsection (a) or (b) of this section instead of conducting direct inquiries.

How Might We Use Administrative Data?

- Replace census and survey questions
- Fill-in-the-blanks during editing and imputation
- Provide additional information to enrich census and survey sources
- Identify vacant housing units to reduce non-response followup costs
- Benchmark for evaluating census and survey data
- Support survey operations in remote areas

Guiding Principles

Authorization	<ul style="list-style-type: none">• Do we have a formal agreement (e.g., contract or interagency agreement) to obtain and use an administrative data?
Availability	<ul style="list-style-type: none">• Are the data available for every year?
Conceptual Alignment	<ul style="list-style-type: none">• Do the administrative data correspond to the concept the ACS currently intends to measure?
Coverage	<ul style="list-style-type: none">• How comprehensive is the coverage of the administrative data with respect to geographies and population subgroups?
Data Source	<ul style="list-style-type: none">• Do the administrative data come from a trusted and respected source, above reproach and conflict free?
Disclosure Avoidance	<ul style="list-style-type: none">• Does use of the administrative data preclude the Census Bureau from ensuring disclosure avoidance of personally identifiable information?

Guiding Principles

Impacts on Estimates

- To what extent does the administrative data source diverge from survey response? Do the differences carry over to other variables (e.g., through editing and imputation)?

Intended Use

- How will the administrative data be used (e.g., editing and imputation, substitution, blended data product)?

Population Universe

- Are the administrative data intended for use to measure something for the total U.S. population or a population subgroup (e.g., condo owners)?

Quality

- What is sufficient data quality for the published estimates? Do the administrative data meet these quality requirements?

Reliability

- Are the administrative data available and consistent over time?

Temporal Alignment

- Do the administrative data correspond to the time period referenced in the ACS?

Administrative Sources

Federal data

- U.S. Census Bureau
- Internal Revenue Service
- Housing and Urban Development
- Childcare Development Fund
- Medicaid and Medicare
- Social Security Administration
- Veteran's Affairs
- U.S. Postal Service
- Selective Service

State and Local data

- Women, Infants, and Children
- Temporary Assistance for Needy Families
- Supplemental Nutrition Assistance Program
- Child Care Subsidy
- Public school districts

Third Party data

- Corelogic property and tax foreclosure
- VSGI consumer households

Evaluating Administrative Sources

- Focus on coverage, quality, conceptual alignment, temporal alignment, and impacts on estimates
- Demographic Measures:
 - High level of conceptual and temporal alignment
 - Coverage, quality, and impact to estimates varies by source and item
- Social and Economic Measures:
 - Issues in conceptual and temporal alignment
 - Great coverage of some items, such as income
- Housing Measures:
 - Concerns with availability and reliability of third party vendors
 - Promise in using for editing and imputation methods

ACS Housing Topics

Most Promising

- Acreage
- Property Value
- Real Estate Tax
- Year Built

More Promising

- Have mortgage
- Agricultural sales

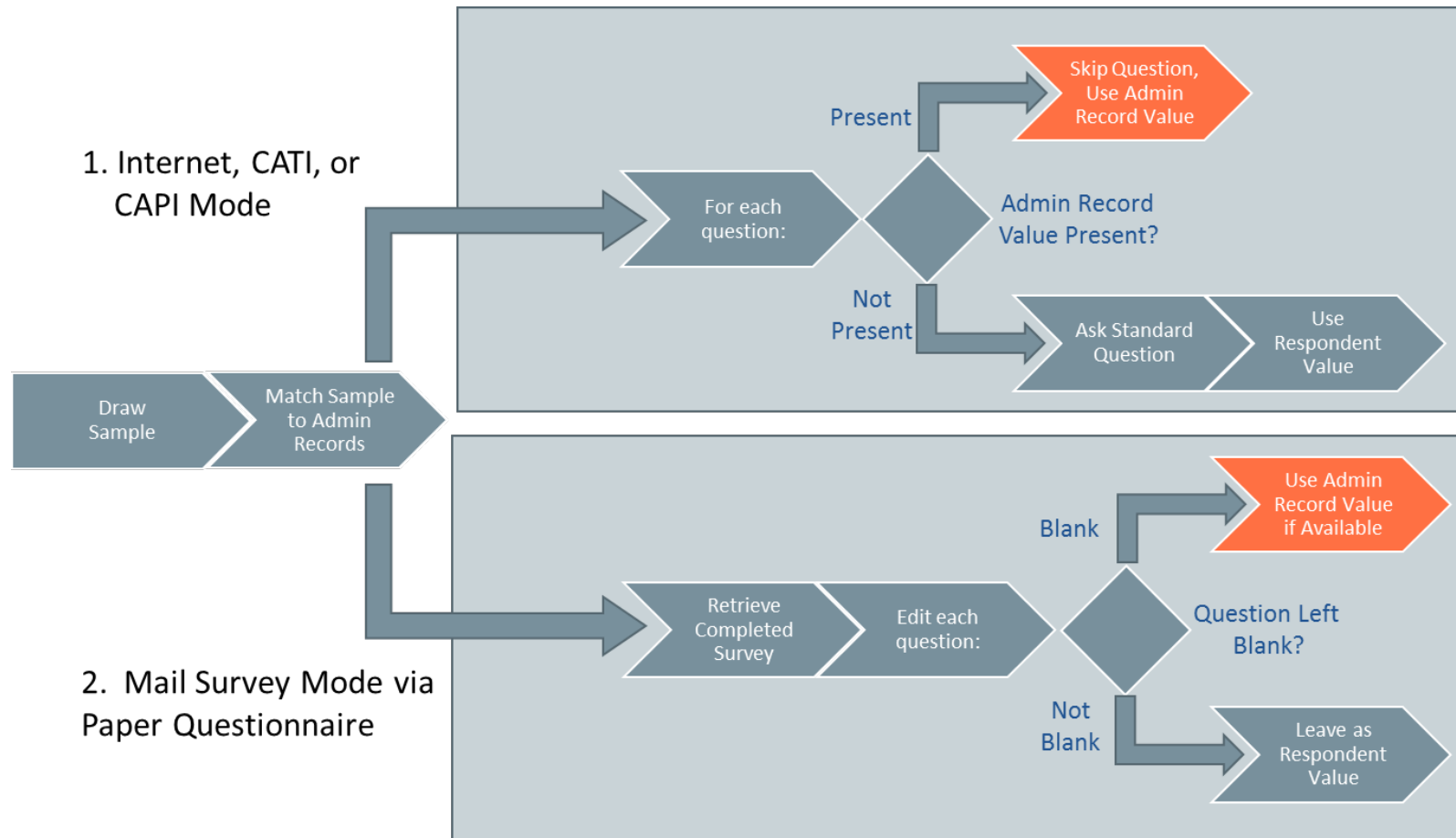
Least Promising

- Phone service
- Part of condominium
- Tenure
- Secondary mortgage/amount
- Number of rooms/bedrooms
- Facilities
- Fuel type

Case Study: Housing Admin Record Simulation

- Used 2015 ACS Responses
- Direct substitution for four housing items: Year built, Acreage, Real estate taxes, Property value
- Substituted ACS responses to simulate an adaptive design approach to data collection
- Ran test dataset through data processing procedures
- Produced “Simulated” version to compare to “Published” 2015 ACS estimates

Case Study: Adaptive Design in Data Collection



Case Study: Findings

- Reduces respondent burden in terms of asking these survey items
- Improves item allocation rates
- AR are different from ACS response data
 - Collection and reporting differs by jurisdiction
 - Time lag between survey year and AR
 - Differences in coverage/availability of AR
 - Discovered impact on other survey items
 - Break in series

Lessons Learned

- Direct replacement alone not enough
- Potential for improving edit and imputation methods
- Risk associated with using outside vendor
- Potential linkage bias
- Impacts entire survey life cycle and other survey items
- Complicate data disclosure avoidance

The Path Forward

- Continue research initiatives to:
 - Improve linkage methods
 - Broaden access to administrative data sources
 - Assess the quality of administrative data sources
 - Develop methods to harmonize survey/administrative data and address coverage issues
 - Create blended data products
- Implement in editing and imputing procedures:
 - Adapt Decennial Census methods for use in the ACS
- Collaborate with others

Questions for Committee

- Are there any thoughts on our guiding principles?
 - Are the existing principles clear? Are there suggestions for other principles we should consider adding to our list?
- Does the committee agree that we should move forward with using administrative data in our edit and imputation procedures?
 - We propose adapting the methods that will be used for the 2020 Census. Are there any concerns with this? Does the committee agree that this should be a priority for the ACS program?
- The list of research initiatives is long and continues to grow. Does the committee have opinions on what they would like to see us focus on first?
- Are there other research initiatives regarding administrative data that we should be aware of?

Thank You!

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